Welcome to STN International! Enter x:x

```
LOGINID:ssspta1623kxg
PASSWORD:
TERMINAL (ENTER 1, 2, 3, OR ?):2
                      Welcome to STN International
                  Web Page URLs for STN Seminar Schedule - N. America
 NEWS
                  "Ask CAS" for self-help around the clock
         Apr 08
 NEWS
                  New e-mail delivery for search results now available
 NEWS
         Jun 03
                  PHARMAMarketLetter(PHARMAML) - new on STN
 NEWS
         Aug 08
                 Aquatic Toxicity Information Retrieval (AQUIRE)
         Aug 19
NEWS
     5
                  now available on STN
                  Sequence searching in REGISTRY enhanced
 NEWS
         Aug 26
                  JAPIO has been reloaded and enhanced
         Sep 03
 NEWS
                  Experimental properties added to the REGISTRY file
         Sep 16
 NEWS
                  CA Section Thesaurus available in CAPLUS and CA
         Sep 16
 NEWS
      9
                 CASREACT Enriched with Reactions from 1907 to 1985
         Oct 01
 NEWS 10
                 BEILSTEIN adds new search fields
         Oct 24
 NEWS 11
                 Nutraceuticals International (NUTRACEUT) now available on STN
         Oct 24
 NEWS 12
                 DKILIT has been renamed APOLLIT
 NEWS 13
         Nov 18
                 More calculated properties added to REGISTRY
         Nov 25
NEWS 14
                 CSA files on STN
NEWS 15
         Dec 04
                  PCTFULL now covers WP/PCT Applications from 1978 to date
 NEWS 16
         Dec 17
         Dec 17
                  TOXCENTER enhanced with additional content
 NEWS 17
         Dec 17
                  Adis Clinical Trials Insight now available on STN
NEWS 18
                 Simultaneous left and right truncation added to COMPENDEX,
NEWS 19
         Jan 29
                  ENERGY, INSPEC
                  CANCERLIT is no longer being updated
 NEWS 20
         Feb 13
         Feb 24 METADEX enhancements
NEWS 21
                 PCTGEN now available on STN
NEWS 22
         Feb 24
         Feb 24
                 TEMA now available on STN
NEWS 23
         Feb 26 NTIS now allows simultaneous left and right truncation
NEWS 24
                 PCTFULL now contains images
NEWS 25
         Feb 26
         Mar 04 SDI PACKAGE for monthly delivery of multifile SDI results
NEWS 26
                 APOLLIT offering free connect time in April 2003
         Mar 19
NEWS 27
         Mar 20 EVENTLINE will be removed from STN
NEWS 28
NEWS 29
         Mar 24
                 PATDPAFULL now available on STN
                 Additional information for trade-named substances without
NEWS 30 Mar 24
                  structures available in REGISTRY
                 Display formats in DGENE enhanced
 NEWS 31
         Apr 11
                 MEDLINE Reload
NEWS 32
         Apr 14
                  Polymer searching in REGISTRY enhanced
NEWS 33
         Apr 17
                  Indexing from 1947 to 1956 being added to records in CA/CAPLUS
NEWS 34
         Apr 21
                 New current-awareness alert (SDI) frequency in
NEWS 35
         Apr 21
                  WPIDS/WPINDEX/WPIX
                 RDISCLOSURE now available on STN
NEWS 36
         Apr 28
              April 4 CURRENT WINDOWS VERSION IS V6.01a, CURRENT
NEWS EXPRESS
               MACINTOSH VERSION IS V6.0b(ENG) AND V6.0Jb(JP),
               AND CURRENT DISCOVER FILE IS DATED 01 APRIL 2003
               STN Operating Hours Plus Help Desk Availability
NEWS HOURS
               General Internet Information
NEWS INTER
               Welcome Banner and News Items
NEWS LOGIN
              Direct Dial and Telecommunication Network Access to STN
NEWS PHONE
```

NEWS WWW CAS World Wide Web Site (general information)

Enter NEWS followed by the item number or name to see news on that specific topic.

All use of STN is subject to the provisions of the STN Customer agreement. Please note that this agreement limits use to scientific research. Use for software development or design or implementation of commercial gateways or other similar uses is prohibited and may result in loss of user privileges and other penalties.

FILE 'HOME' ENTERED AT 09:50:10 ON 30 APR 2003

=> file caplus
COST IN U.S. DOLLARS

SINCE FILE TOTAL ENTRY SESSION 0.21 0.21

FULL ESTIMATED COST

FILE 'CAPLUS' ENTERED AT 09:50:30 ON 30 APR 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 30 Apr 2003 VOL 138 ISS 18 FILE LAST UPDATED: 29 Apr 2003 (20030429/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s dextran

L1

30289 DEXTRAN 3888 DEXTRANS 31015 DEXTRAN

(DEXTRAN OR DEXTRANS)

=> e chaubet frederic/in,au

E1	3	CHAUBET	D/AU
E2	10	CHAUBET	F/AU
E3	4>	CHAUBET	FREDERIC/IN
E4	21	CHAUBET	FREDERIC/AU
E5	1	CHAUBET	GIGOT N/AU
E6	6	CHAUBET	GIGOT NICOLE/AU
E7	4	CHAUBET	M/AU
E8	1	CHAUBET	MICHEL/AU
E9	4	CHAUBET	N/AU
E10	2	CHAUBET	NICOLE/IN
E11	28	CHAUBET	NICOLE/AU

```
=> s l1 and (growth (w) factor)
       1051433 GROWTH
          3941 GROWTHS
       1053507 GROWTH
                 (GROWTH OR GROWTHS)
        770514 FACTOR
        672571 FACTORS
       1218305 FACTOR
                 (FACTOR OR FACTORS)
        132255 GROWTH (W) FACTOR
           586 L1 AND (GROWTH (W) FACTOR)
L2
=> s 12 and biommaterial
             0 BIOMMATERIAL
             0 L2 AND BIOMMATERIAL
L3
=> s 12 and biomaterial
          5237 BIOMATERIAL
          5849 BIOMATERIALS
          8291 BIOMATERIAL
                 (BIOMATERIAL OR BIOMATERIALS)
            10 L2 AND BIOMATERIAL
1.4
=> s 14 and (cross-link or crosslink)
) IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
=> s 14 and (cross (w) link)
) IS NOT A RECOGNIZED COMMAND
The previous command name entered was not recognized by the system.
For a list of commands available to you in the current file, enter
"HELP COMMANDS" at an arrow prompt (=>).
=> s 14 and (cross-linked or crosslinked)
        411377 CROSS
         12769 CROSSES
        422425 CROSS
                 (CROSS OR CROSSES)
        197229 LINKED
             1 LINKEDS
        197229 LINKED
                 (LINKED OR LINKEDS)
         19793 CROSS-LINKED
                 (CROSS (W) LINKED)
         84278 CROSSLINKED
             6 L4 AND (CROSS-LINKED OR CROSSLINKED)
L5
=> dis 15 1-6 bib abs
     ANSWER 1 OF 6 CAPLUS COPYRIGHT 2003 ACS
L5
     2002:408555 CAPLUS
AN
DN
     136:391055
TI
     Porous polymeric biomaterials for use as implants
     Boudy, Vincent; Laurent, Alexandre; Labarre, Denis; Chaumeil, Jean-Claude
IN
PΑ
     Assistance Publique - Hopitaux De Paris, Fr.
     PCT Int. Appl., 25 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
   French
FAN.CNT 1
```

```
APPLICATION NO. DATE
     PATENT NO.
                    KIND DATE
     WO 2002041928 A1 20020530 WO 2001-FR3623 20011119
PΙ
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
             CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
             GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
             LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
             PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA,
             UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
             CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
                     A1 20020524 FR 2000-15065 20001122
     FR 2816847
     AU 2002020795
                      A5
                           20020603
                                         AU 2002-20795
                                                          20011119
                           20001122
PRAI FR 2000-15065
                     Α
     WO 2001-FR3623
                     W
                           20011119
     The invention concerns porous polymeric biomaterials contg. a
AB
     porous polymeric matrix optionally filled with biol. and/or chem. active
     agents, the method for prepg. same and their uses, in particular as
     implant. Acrylic microspheres (Trisacryl-DEAE) were added to a soln. of
     sodium alginate followed by addn. of calcium ion. The porous polymer thus
     obtained was placed in a soln. of 5q/L indomethacin for 12-48 h. Release
     of indomethacin from the polymer was studied.
              THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD
RE.CNT 6
              ALL CITATIONS AVAILABLE IN THE RE FORMAT
     ANSWER 2 OF 6 CAPLUS COPYRIGHT 2003 ACS
L_5
     2002:124031 CAPLUS
ΑN
DN
     137:221963
TI
     Heparin and non-heparin-like dextrans differentially modulate
     endothelial cell proliferation: in vitro evaluation with soluble and
     crosslinked polysaccharide matrices
     Letourneur, Didier; Machy, Delphine; Pelle, Anne; Marcon-Bachari, Eva;
ΑU
     D'Angelo, Gisela; Vogel, Magali; Chaubet, Frederic; Michel, Jean-Baptiste
CS
     INVIMAT, X., Bichat Medical School, Paris, 75018, Fr.
SO
     Journal of Biomedical Materials Research (2002), 60(1), 94-100
     CODEN: JBMRBG; ISSN: 0021-9304
PB
     John Wiley & Sons, Inc.
DT
     Journal
LA
     English
AB
     Proliferation of endothelial cells (ECs) is a cellular step of particular
     importance for implanted cardiovascular biomaterials. Heparin
     and some synthetic water-sol. non-anticoagulant polysaccharides derived
     from dextran and bearing anionic carboxymethyl and hydrophobic
     benzylamine groups were first investigated for their effects on EC
     proliferation in vitro. The results assessed by cell counting,
     3H-thymidine uptake, and flow cytometry anal., showed that the derivatized
     dextran-bearing hydrophobic groups stimulated the EC growth in the
    presence of serum, whereas native dextran or dextran
     -bearing anionic carboxymethyl groups were inactive and heparin was
     slightly inhibitory. Then, we showed that the derivatized dextran
     enhanced EC proliferation by potentiation of the mitogenic activities of
    vascular endothelial growth factor (VEGF) and basic
     fibroblast growth factor (FGF-2), two potent EC
    growth factors. In the presence of 2 nM of derivatized
    dextran, a 3-fold and 13-fold increase of 3H-thymidine uptake was
    obtained with VEGF and FGF-2, resp. Finally, proliferation of ECs was
     investigated on crosslinked gels made of polysaccharides. It is
```

of interest that EC proliferation was higher on gels contg. the derivatized dextran than on plain hydrogels, and heparinized

that the synthetic non-heparin-like dextran may be of interest as a coating for the endothelialization of cardiovascular

biomaterials.

gels inhibited cell proliferation. From the obtained results, we propose

#### THERE ARE 43 CITED REFERENCES AVAILABLE FOR THIS RECORD RE.CNT 43 ALL CITATIONS AVAILABLE IN THE RE FORMAT ANSWER 3 OF 6 CAPLUS COPYRIGHT 2003 ACS L5 2000:900497 CAPLUS AN DN 134:61577 Biologically active material based on an insolubilized dextran ΤI derivative and a growth factor Blanchat, Cinderella; Logeart-avramoglou, Delphine; Petite, Herve; IN Meunier, Alain; Chaubet, Frederic; Jozefonvicz, Jacqueline; Jozefowicz, Marcel; Sedel, Laurent; Correia, Jose PA Iterfi, Fr. PCT Int. Appl., 42 pp. SO CODEN: PIXXD2 DTPatent French T.A FAN.CNT 1 PATENT NO. KIND DATE APPLICATION NO. DATE ---------PΤ WO 2000076562 A1 20001221 WO 2000-FR1603 20000609 W: CA, JP, US RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE 20001215 FR 1999-7401 19990611 FR 2794649 Al FR 2794649 B1 20030411 EP 2000-940481 20000609 EP 1189644 A1 20020327 R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI JP 2001-502893 20000609 JP 2003501217 T2 20030114 US 2002169120 A1 20021114 US 2001-16706 20011211 PRAI FR 1999-7401 Α 19990611 WO 2000-FR1603 W 20000609 The invention concerns a biol. active material essentially comprising at AB least an insolubilized dextran deriv. of general formula DMCaBbSucSd and at least a growth factor having an activity on osteoarticular, dental and/or maxillofacial tissues, and the method for prepg. same. The invention also concerns the uses of said biomaterial for prepg. a repair or filling material, such as an implant, for osteoarticular, dental or maxillofacial applications and for prepg. an orthopedic, dental or maxillofacial prosthesis, and the prosthesis coated with said biol. active material. A hydrogel comprising dextran derivs. crosslinked with sodium trimetaphosphate and 0.5 ng/gel bone morphogenic protein was prepd. and lyophilized to obtain a powder. Thus, 15 mg of the above powder was rehydrated with 100 .mu.L water and used as a bone implant to fill a bone cavity of about 50 mm3. RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT L5 ANSWER 4 OF 6 CAPLUS COPYRIGHT 2003 ACS AN 1996:417927 CAPLUS DN 125:67866 TI Biomaterials containing epithelial cells attached on microcarriers for transplant IN Dimoudis, Nikolaos; Hartinger, Anton PA Boehringer Mannheim Gmbh, Germany

CODEN: PIXXD2 DTPatent English LA FAN.CNT 2 PATENT NO. KIND DATE APPLICATION NO. DATE ---------PΙ A1 19960502 WO 1995-EP4164 19951024 WO 9612510

SO

PCT Int. Appl., 35 pp.

```
AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI,
            GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD,
            MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ,
            TM, TT
        RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT,
            LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE,
            SN, TD, TG
                           19960502
                                         DE 1994-4438015 19941025
     DE 4438015
     AU 9538066
                      A1
                           19960515
                                         AU 1995-38066
                                                         19951024
                                         EP 1995-935961
                           19970813
                                                         19951024
     EP 788381
                      A1.
     EP 788381
                           20030416
                     В1
        R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE
     JP 09511673 T2 19971125
                                         JP 1995-513651 19951024
     US 5980888
                     Α
                           19991109
                                         US 1997-809408
                                                         19970423
PRAI DE 1994-4438015 A
                           19941025
     US 1995-452701 A 19950530
                           19951024
     WO 1995-EP4164
                     W
     Biomaterials contg. epithelial cells which are adherently
AB
     attached to microcarriers are suitable for use in prepg. a transplantation
     material for the treatment of wounds. The microcarriers preferably have a
     diam. of 50 to 500 .mu.m and a coverage with epithelial cells of 30 to 100

    Cytodex 3 (a collagen-coated crosslinked dextran)

     microcarriers (MC) were incubated at a concn. of 1.2x105 MC/mL of culture
     medium with keratinocytes at a concn. of 1x106 keratinocytes/mL of culture
     medium at 37.degree. for 3-4 h. The no. of covered MCs was 50-70% and the
     covered d. of the individual MCs was 70-90%.
    ANSWER 5 OF 6 CAPLUS COPYRIGHT 2003 ACS
1.5
     1993:595701 CAPLUS
AN
     119:195701
DN
     Use of injectable biomaterials for the repair and augmentation
TΙ
     of the anal sphincter
IN
     Freed, Jeffrey S.
     JSF Consultants Ltd., USA
PΑ
     PCT Int. Appl., 22 pp.
SO
     CODEN: PIXXD2
DT
    Patent
    English
LΑ
FAN.CNT 1
     PATENT NO.
                   KIND DATE
                                    APPLICATION NO. DATE
     ______
     WO 9316658 A1 19930902
                                       WO 1993-US1879
                                                         19930217
PΙ
        W: AU, CA, FI, JP, NO, NZ
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
                                       US 1992-843124
    US 5480644
                    Α
                         19960102
                                                         19920228
                          19930913
                                        AU 1993-37853
                                                         19930217
    AU 9337853
                     A1
    AU 674308
                     B2 19961219
                     A1 19941214
    EP 627900
                                        EP 1993-907146
                                                         19930217
                     B1 19990512
    EP 627900
        R: AT, BE, CH, DE, ES, FR, GB, IE, IT, LI, NL, PT, SE
    JP 07505146 T2 19950608
                                       JP 1993-515122 19930217
    AT 179877
                     E
                          19990515
                                        AT 1993-907146
                                                         19930217
                                        ES 1993-907146 19930217
    ES 2134843
                    T3 19991016
                     A 19960213
                                         US 1995-444187
    US 5490984
                                                         19950518
PRAI US 1992-843124
                         19920228
    WO 1993-US1879
                          19930217
    Methods are disclosed for repair of structurally defective or inadequately
AB
     functioning muscles of the anal sphincter, as are methods for improvement
    of the competency of incompetent anal sphincters. The methods involve
     administration of an effective amt. of an injectable biomaterial
     into the defect or into the anal sinuses. A method for inducing wound
    healing of a structurally defective anal sphincter using the injectable
    biomaterial, contg. .gtoreq.1 wound-healing agents, is claimed.
     Preferred biomaterials are collagen formulations. Use of
```

```
atelopeptide fibrillar collagen injection in a patient is described.
    ANSWER 6 OF 6 CAPLUS COPYRIGHT 2003 ACS
L5
AN
    1993:574230 CAPLUS
DN
     119:174230
    Use of injectable biomaterials in the treatment of hemorrhoids
TΤ
     and/or pruritis ani
IN
     Freed, Jeffrey S.
     JSF Consultants Ltd., USA
PA
     PCT Int. Appl., 19 pp.
SO
     CODEN: PIXXD2
DT
    Patent
LA
    English
FAN.CNT 1
                                       APPLICATION NO. DATE
                   KIND DATE
    PATENT NO.
                                        _____
     -----
                    A1 19930902
                                       WO 1993-US1391 19930217
    WO 9316711
PΙ
        W: AU, CA, FI, JP, NO, NZ
        RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE
    AU 9337204 A1 19930913 AU 1993-37204 19930217
                         19941214
                                        EP 1993-906001 19930217
     EP 627927
                     A1
        R: AT, CH, DE, FR, GB, IT, LI, NL, SE
                   T2 19950518
                                       JP 1993-514930 19930217
     JP 07504413
PRAI US 1992-843379
                          19920228
                          19930217
    WO 1993-US1391
    Methods are disclosed for treating hemorrhoids and/or pruritis ani. An
AB
     effective amt. of an injectable biomaterial is administered into
     the soft tissues of the anal verge. Preferred biomaterials are
     collagen formulations (no data).
=> dis hist
     (FILE 'HOME' ENTERED AT 09:50:10 ON 30 APR 2003)
    FILE 'CAPLUS' ENTERED AT 09:50:30 ON 30 APR 2003
         31015 S DEXTRAN
L1
               E CHAUBET FREDERIC/IN, AU
           586 S L1 AND (GROWTH (W) FACTOR)
L2
             0 S L2 AND BIOMMATERIAL
L3
            10 S L2 AND BIOMATERIAL
L4
             6 S L4 AND (CROSS-LINKED OR CROSSLINKED)
L5
=> s (sulfate or sulphate)
       431132 SULFATE
        81280 SULFATES
       471560 SULFATE
                (SULFATE OR SULFATES)
         3604 SULPHATE
          593 SULPHATES
         4030 SULPHATE
                (SULPHATE OR SULPHATES)
       474279 (SULFATE OR SULPHATE)
Lб
=> s (sulfonate or sulphonate)
        50271 SULFONATE
        16698 SULFONATES
        59002 SULFONATE
                (SULFONATE OR SULFONATES)
          195 SULPHONATE
           38 SULPHONATES
          228 SULPHONATE
```

(SULPHONATE OR SULPHONATES)

59161 (SULFONATE OR SULPHONATE)

L7

```
42035 CARBOXYMETHYL?
=> s 16 or 17 or 18
        563556 L6 OR L7 OR L8
=> s 19 and 11
         6931 L9 AND L1
L10
=> s l10 and (growth (w) factor)
       1051433 GROWTH
          3941 GROWTHS
       1053507 GROWTH
                 (GROWTH OR GROWTHS)
        770514 FACTOR
        672571 FACTORS
       1218305 FACTOR
                 (FACTOR OR FACTORS)
        132255 GROWTH (W) FACTOR
L11
           304 L10 AND (GROWTH (W) FACTOR)
=> s lll and (cross(w)link?)
        411377 CROSS
         12769 CROSSES
        422425 CROSS
                 (CROSS OR CROSSES)
        357417 LINK?
         37348 CROSS(W)LINK?
             3 L11 AND (CROSS(W)LINK?)
L12
=> dis 112 1-3 bib abs
L12 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2003 ACS
     2000:911116 CAPLUS
ΑN
DN
     134:61557
TI
     Injectable hyaluronate-sulfated polysaccharide conjugates
     Spiro, Robert C.; Liu, Linshu
IN
     Orquest, Inc., USA
PA
     PCT Int. Appl., 23 pp.
SO
     CODEN: PIXXD2
DT
     Patent
LA
    English
FAN.CNT 1
                                         APPLICATION NO. DATE
     PATENT NO.
                    KIND DATE
     -----
                                          -----
                                        WO 2000-US16793 20000616
     WO 2000078356 A1 20001228
PΙ
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR,
             CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU,
             ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU,
             LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD,
             SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU,
             ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
             DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ,
             CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
                     B1 20010911 US 1999-336005 19990618
A1 20020320 EP 2000-944722 20000616
     US 6288043
     EP 1187636
            AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, MC, PT, IE,
             SI, LT, LV, FI, RO
                                         JP 2001-504418 20000616
     JP 2003502389
                     T2 20030121
    US 1999-336005 A 19990618 WO 2000-US16793 W 20000616
PRAI US 1999-336005
AB
     An injectable compn. is provided for promoting bone and/or cartilage
```

=> s carboxymethyl?

growth comprising hyaluronic acid **cross-linked** to sulfated polysaccharide through linking groups. The linking groups are diamines or amino polyalkylene glycols. The sulfated polysaccharide binds **growth factors** suitable for promoting tissue growth at the site of application of the compn. Gels were formed by the conjugation of hyaluronic acid carrying primary amine group with heparin carrying active aldehyde group. Basic fibroblast **growth factor**(I) was incorporated into the gel and release kinetics of the I was studied.

RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L12 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2003 ACS
- AN 1994:672990 CAPLUS
- DN 121:272990
- TI Aggregation pathway of recombinant human keratinocyte growth factor and its stabilization
- AU Chen, Bao-lu; Arakawa, Tsutomu; Morris, Charles F.; Kenney, William C.; Wells, Christina M.; Pitt, Colin G.
- CS Department of Pharmaceutics and Drug Delivery, Amgen Inc., Thousand Oaks, CA, 91320, USA
- SO Pharmaceutical Research (1994), 11(11), 1581-7 CODEN: PHREEB; ISSN: 0724-8741
- PB Plenum
- DT Journal
- LA English
- Recombinant human keratinocyte growth factor (rhKGF) is prone to aggregation at elevated temps. Its aggregation pathway is proposed to proceed initially with a conformational change which perhaps results from repulsion between pos. charged residues in clusters forming heparin binding sites. Unfolding of the protein leads to formation of large sol. aggregates. These sol. aggregates then form disulfide cross-linked ppts. Finally these ppts. are converted to scrambled disulfides and/or non-disulfide cross-linked ppts. Stabilizers such as heparin, sulfated polysaccharides, anionic polymers and citrate can greatly decrease the rate of aggregation of rhKGF at elevated temps. These mols. may all act by reducing charge repulsion on the protein thus stabilizing the native conformation. EDTA, on the other hand, is found to inhibit disulfide formation in aggregates and has only a moderate stabilizing effect on rhKGF.
- L12 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2003 ACS
- AN 1993:93872 CAPLUS
- DN 118:93872
- TI Reversal of basic fibroblast **growth factor**-mediated autocrine cell transformation by aromatic anionic compounds
- AU Benezra, Miriam; Vlodavsky, Israel; Yayon, Avner; Bar-Shavit, Rachel; Regan, John; Chang, Michael; Ben-Sasson, Shmuel
- CS Dep. Oncol., Hadassah Univ. Hosp., Jerusalem, Israel
- SO Cancer Research (1992), 52(20), 5656-62 CODEN: CNREA8; ISSN: 0008-5472
- DT Journal
- LA English
- AB NIH-3T3 cells transfected with basic fibroblast growth factor (bFGF) fused to a signal peptide sequence (spbFGF cells) are transformed in vitro and tumorigenic in vivo. Treatment of spbFGF cells with low and nontoxic concns. (0.5-2.5 .mu.g/mL) of neg. charged, nonsulfated arom. compds. (e.g., aurin tricarboxylic acid, 4-hydroxyphenoxyacetic acid) resulted in restoration of their normal proliferative rate, morphol. appearance, and adhesion properties. Binding and crosslinking expts. using 125I-labeled bFGF revealed that these alterations were assocd. with an up-regulation of high affinity receptors for bFGF on the cell surface. A similar up-regulation of crosslinkable bFGF receptors was induced by these compds. in spbFGF

cells that were seeded on fibronectin to enforce a firm cell attachment and flattening. Thus, induction of spbFGF cell adhesion and spreading may not be related to restoration of normal bFGF-receptor interactions. Although the neg. charged arom. compds. mimic many of the effects of heparin in other systems (e.g., release of heparin- and heparan sulfate-bound proteins, inhibition of heparanase), heparin, heparan sulfate, and dextran sulfate were not effective at the low concns. of the anionic compds. used in the present study. Likewise, suramin, a sulfated arom. mol., was effective at toxic concns., 400-600-fold higher than the nonsulfated arom. compds. The development of defined, nontoxic anionic compds. may provide a new strategy to interfere with the autonomous and anchorage independent mode of cell growth involved in autocrine cell transformation and cancer.

=> file polymers
COST IN U.S. DOLLARS

SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST

DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)

CA SUBSCRIBER PRICE

SINCE FILE TOTAL
ENTRY SESSION
-5.86
-5.86

FILE 'APOLLIT' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (c) 2003 FIZ Karlsruhe

FILE 'BABS' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (c) 2003 Beilstein-Institut zur Foerderung der Chemischen Wissenschaften licensed to Beilstein Chemiedaten & Software GmbH and MDL Information Systems GmbH

FILE 'CAPLUS' ENTERED AT 10:06:35 ON 30 APR 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)

FILE 'CBNB' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (c) 2003 ELSEVIER ENGINEERING INFORMATION, INC.

FILE 'CEN' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (C) 2003 American Chemical Society (ACS)

FILE 'CIN' ENTERED AT 10:06:35 ON 30 APR 2003 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS. COPYRIGHT (C) 2003 American Chemical Society (ACS)

FILE 'EMA' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (C) 2003 Cambridge Scientific Abstracts (CSA)

FILE 'IFIPAT' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (C) 2003 IFI CLAIMS(R) Patent Services (IFI)

FILE 'JICST-EPLUS' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (C) 2003 Japan Science and Technology Corporation (JST)

FILE 'PASCAL' ENTERED AT 10:06:35 ON 30 APR 2003
Any reproduction or dissemination in part or in full,
by means of any process and on any support whatsoever
is prohibited without the prior written agreement of INIST-CNRS.
COPYRIGHT (C) 2003 INIST-CNRS. All rights reserved.

FILE 'PLASNEWS' ENTERED AT 10:06:35 ON 30 APR 2003 Copyright (C) 2003 Bill Communications, Inc. (BCI)

FILE 'PROMT' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (C) 2003 Gale Group. All rights reserved. FILE 'RAPRA' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (C) 2003 RAPRA Technology Ltd. FILE 'SCISEARCH' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT 2003 THOMSON ISI FILE 'TEXTILETECH' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (C) 2003 Inst. of Textile Technology FILE 'USPATFULL' ENTERED AT 10:06:35 ON 30 APR 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'USPAT2' ENTERED AT 10:06:35 ON 30 APR 2003 CA INDEXING COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS) FILE 'WPIDS' ACCESS NOT AUTHORIZED FILE 'WPINDEX' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (C) 2003 THOMSON DERWENT FILE 'WTEXTILES' ENTERED AT 10:06:35 ON 30 APR 2003 COPYRIGHT (C) 2003 Elsevier Science B.V., Amsterdam. All rights reserved. => dis hist (FILE 'HOME' ENTERED AT 09:50:10 ON 30 APR 2003) FILE 'CAPLUS' ENTERED AT 09:50:30 ON 30 APR 2003 31015 S DEXTRAN L1E CHAUBET FREDERIC/IN, AU 586 S L1 AND (GROWTH (W) FACTOR) L2 0 S L2 AND BIOMMATERIAL L3 10 S L2 AND BIOMATERIAL L46 S L4 AND (CROSS-LINKED OR CROSSLINKED)  $L_5$ 474279 S (SULFATE OR SULPHATE) L6 59161 S (SULFONATE OR SULPHONATE) L742035 S CARBOXYMETHYL? L8 563556 S L6 OR L7 OR L8 Ь9 6931 S L9 AND L1 L10 304 S L10 AND (GROWTH (W) FACTOR) L11 3 S L11 AND (CROSS(W)LINK?) L12 FILE 'APOLLIT, BABS, CAPLÚS, CBNB, CEN, CIN, EMA, IFIPAT, JICST-EPLUS, PASCAL, PLASNEWS, PROMT, RAPRA, SCISEARCH, TEXTILETECH, USPATFULL, USPAT2, WPINDEX, WTEXTILES' ENTERED AT 10:06:35 ON 30 APR 2003 => s 15 12 FILES SEARCHED... 335 L5 1.13 => s l13 and (sulfate or sulfonate or carboxymethy?) 284 L13 AND (SULFATE OR SULFONATE OR CARBOXYMETHY?) => s 112 12 FILES SEARCHED... 18 FILES SEARCHED... L15 5037 L12

=> s 114 and biomaterial

L16

284 L14 AND BIOMATERIAL

```
=> s l16 and (tissue or fill? or hydrogel)
  17 FILES SEARCHED...
           283 L16 AND (TISSUE OR FILL? OR HYDROGEL)
=> s 117 and (collagen or gelatin or glycol or glycolide or hydroxyapatite or
carbonate)
           274 L17 AND (COLLAGEN OR GELATIN OR GLYCOL OR GLYCOLIDE OR HYDROXYA
T.18
               PATITE OR CARBONATE)
=> s 118 and bmp
            69 L18 AND BMP
L19
=> s 119 and prosthesis
            35 L19 AND PROSTHESIS
L20
=> dis 120 1-35 bib abs
L20 ANSWER 1 OF 35 USPATFULL
AN
       2003:78517 USPATFULL
       VERTEBRATE EMBRYONIC PATTERN-INDUCING PROTEINS AND USES RELATED THERETO
тT
       INGham, PHILIP w, OXFORD, UNITED KINGDOM
TN
       MCMAHON, ANDREW P., LEXINGTON, MA, UNITED STATES
       TABIN, CLIFFORD J, CAMBRIDGE, MA, UNITED STATES
                               20030320
       US 2003054437
                          A1
PΙ
       US 1997-954771
                          A1
                               19971020 (8)
ΑI
       Continuation of Ser. No. US 1995-462386, filed on 5 Jun 1995, PENDING
RLI
       Continuation-in-part of Ser. No. US 1995-435093, filed on 4 May 1995,
       ABANDONED Continuation-in-part of Ser. No. US 1994-356060, filed on 14
       Dec 1994, GRANTED, Pat. No. US 5844079 Continuation-in-part of Ser. No.
       US 1993-176427, filed on 30 Dec 1993, GRANTED, Pat. No. US 5789543
DT
       Utility
       APPLICATION
FS
       ROPES & GRAY, ONE INTERNATIONAL PLACE, BOSTON, MA, 02110-2624
LREP
       Number of Claims: 41
CLMN
       Exemplary Claim: 1
ECL
       18 Drawing Page(s)
DRWN
LN.CNT 8774
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention concerns the discovery that proteins encoded by a
       family of vertebrate genes, termed here hedgehog-related genes, comprise
       morphogenic signals produced by embryonic patterning centers, and are
       involved in the formation of ordered spatial arrangements of
       differentiated tissues in vertebrates. The present invention
       makes available compositions and methods that can be utilized, for
       example to generate and/or maintain an array of different vertebrate
       tissue both in vitro and in vivo.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L20 ANSWER 2 OF 35 USPATFULL
AN
       2003:71043 USPATFULL
       Porous beta-tricalcium phosphate granules and methods for producing same
TI
IN
       Dalal, Paresh S., Shrewsbury, MA, UNITED STATES
       Dimaano, Godofredo R., Edison, NJ, UNITED STATES
       Toth, Carol Ann, Sharon, MA, UNITED STATES
       Kulkarni, Shailesh C., Natick, MA, UNITED STATES
       US 2003049328
ÞΤ
                         A1
                               20030313
AΤ
       US 2001-798518
                          A1
                               20010302 (9)
       Utility
DT
FS
       APPLICATION
       FISH & NEAVE, 1251 AVENUE OF THE AMERICAS, 50TH FLOOR, NEW YORK, NY,
LREP
```

10020-1105

Number of Claims: 75

CLMN

Exemplary Claim: 1 ECL 26 Drawing Page(s) DRWN LN.CNT 2677 CAS INDEXING IS AVAILABLE FOR THIS PATENT. A porous .beta.-tricalcium phosphate material for bone implantation is provided. The multiple pores in the porous TCP body are separate discrete voids and are not interconnected. The pore size diameter is in the range of 20-500 .mu.m, preferably 50-125 .mu.m. The porous .beta.-TCP material provides a carrier matrix for bioactive agents and can form a moldable putty composition upon the addition of a binder. The invention provides a kit and an implant device comprising the porous .beta.-TCP, and one or more additional components including a bioactive agent and a binder. The invention also provides an implantable prosthetic device comprising a prosthetic implant having a surface region, a porous .beta.-TCP material disposed on the surface region and optionally comprising at least a bioactive agent or a binder. Methods of producing the porous .beta.-TCP material and inducing bone formation are also provided. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L20 ANSWER 3 OF 35 USPATFULL 2002:344863 USPATFULL AN System for repairing inter-vertebral discs TIHaldimann, David, Loretohohe, SWITZERLAND IN US 2002198599 A1 20021226 PΤ 20020730 (10) AΤ US 2002-207285 **A1** Continuation of Ser. No. US 2000-549332, filed on 14 Apr 2000, GRANTED, RLI Pat. No. US 6428576 US 1999-129607P 19990416 (60) PRAI DTUtility APPLICATION FS LOWE HAUPTMAN GILMAN AND BERNER, LLP, 1700 DIAGONAL ROAD, SUITE 300 LREP /310, ALEXANDRIA, VA, 22314 Number of Claims: 3 CLMN Exemplary Claim: 1 ECL DRWN 3 Drawing Page(s) LN.CNT 1035 An intervertibral disc made up of an annulus fibrosus having at least AB one defect therein, a cross linked visco-elastic solid polymer in said defect and adhering to remaining annulus fibrosus and thereby closing said defect and a nucleus pulposus. L20 ANSWER 4 OF 35 USPATFULL 2002:301575 USPATFULL ΔN Biologically active material based on an insolubilised dextran TТ derivative and a growth factor Blanchat, Cinderella, Margency, FRANCE IN Logeart-Avramoglou, Delphine, Groslay, FRANCE Petite, Herve, Paris, FRANCE Meunier, Alain, Saint-Mande, FRANCE Chaubet, Frederic, Eaubonne, FRANCE Jozefonvicz, Jacqueline, Lamorlaye, FRANCE Jozefowicz, Marcel, Lamorlaye, FRANCE Sedel, Laurent, Jouy en Josas, FRANCE Correia, Jose, Saint Amand Les Eaux, FRANCE PΙ A1 20021114 US 2002169120 A1 AΙ US 2001-16706 20011211 (10)

PRAI

DT

FS

LREP

FR 1999-7401

APPLICATION

Utility

WO 2000-FR1603

19990611

20000609

Welsh & Katz, Ltd., Thomas W. Tolpin, 22nd Floor, 120 South Riverside

```
Plaza, Chicago, IL, 60606
       Number of Claims: 23
CLMN
ECL
       Exemplary Claim: 1
DRWN
       4 Drawing Page(s)
LN.CNT 983
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The invention concerns a biologically active material essentially
ΔR
       comprising at least an insolubilised dextran derivative of
       general formula DMC.sub.aB.sub.bSU.sub.cS.sub.d and at least a
       growth factor having an activity on osteoarticular,
       dental and/or maxillofacial tissues, and the method for
       preparing same. The invention also concerns the uses of said
       biomaterial for preparing a repair or filing material, such as
       an implant, for osteoarticular, dental or maxillofacial applications and
       for preparing an orthopaedic, dental or maxillofacial prosthesis
       , and the prosthesis coated with said biologically active
       material.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
T.2.0
     ANSWER 5 OF 35 USPATFULL
       2002:194378 USPATFULL
AN
       System for repairing inter-vertebral discs
TI
       Haldimann, David, Zug, SWITZERLAND
IN
PΑ
       Endospine, Ltd., Cham, SWITZERLAND (non-U.S. corporation)
PΙ
       US 6428576
                          B1
                               20020806
       US 2000-549332
                               20000414 (9)
AΤ
PRAI
       US 1999-129607P
                           19990416 (60)
       Utility
DT
FS
       GRANTED
      Primary Examiner: McDermott, Corrine; Assistant Examiner: Blanco, Javier
EXNAM
LREP
       Lowe Hauptman Gilman & Berner, LLP
       Number of Claims: 25
CLMN
ECL
       Exemplary Claim: 1
DRWN
       3 Drawing Figure(s); 3 Drawing Page(s)
LN.CNT 1215
       A method of ameliorating the adverse effects of a defect in the annulus
AB
       fibrosus by applying a curable bio-compatible material to the defect,
       and curing that material, in situ, into a cross linked
       visco-elastic solid polymer adhering to remaining annulus fibrosus and
       thereby closing said defect. Alternatively, the bio-compatible material
       may be cross linked immediately before insertion
       into the annulus fibrosus.
L20 ANSWER 6 OF 35 USPATFULL
       2002:105938 USPATFULL
AN
TТ
       Bone precursor compositions
IN
       Bell, Eugene, Boston, MA, UNITED STATES
       Sioussat, Tracy M., Reading, MA, UNITED STATES
PA
       Tissue Engineering, Inc. (U.S. corporation)
PΙ
       US 2002055143
                          A1
                               20020509
ΑI
       US 2001-867093
                               20010529 (9)
                          A1
RLI
       Continuation of Ser. No. US 1999-369012, filed on 5 Aug 1999, PENDING
PRAI
       US 1998-95627P
                           19980807 (60)
DT
       Utility
FS
       APPLICATION
       Ellen Leonnig, TEI Biosciences, Inc., 7 Elkins Street, Boston, MA, 02127
LREP
CLMN
       Number of Claims: 56
ECL
       Exemplary Claim: 1
DRWN
       No Drawings
LN.CNT 1561
ΑB
       Bone precursor compositions, methods of preparation and use are
```

described. Bone precursor compositions include a calcium cement which is suitable for injection, wherein the calcium cement includes monobasic calcium phosphate monohydrate and beta-tricalcium phosphate. The bone precursor compositions can further include biopolymer foams, collagen, extracellular matrix components, therapeutic agents, or biopolymer fibers. The bone precursor compositions can also include or be conditioned with cells, such as connective tissue cells, preferably bone tissue cells.

```
L20 ANSWER 7 OF 35 USPATFULL
       2002:102612 USPATFULL
AN
       Vertebrate embryonic pattern-inducing proteins
ΤI
       Ingham, Philip W., Summertown, UNITED KINGDOM
IN
       McMahon, Andrew P., Lexington, MA, United States
       Tabin, Clifford J., Cambridge, MA, United States
       President & Fellows of Harvard College, Cambridge, MA, United States
PΑ
       (U.S. corporation)
       Imperial Cancer Research Technology, Ltd., London, UNITED KINGDOM
       (non-U.S. corporation)
                               20020507
PΤ
       US 6384192
                          B1
       US 1997-957874
                               19971020 (8)
AΙ
       Continuation of Ser. No. US 1995-462386, filed on 5 Jun 1995
RLI
       Continuation-in-part of Ser. No. US 1995-435093, filed on 4 May 1995,
       now abandoned Continuation-in-part of Ser. No. US 1994-356060, filed on
       14 Dec 1994, now patented, Pat. No. US 5844079 Continuation-in-part of
       Ser. No. US 1993-176427, filed on 30 Dec 1993, now patented, Pat. No. US
       5789543
DT
       Utility
       GRANTED
FS
       Primary Examiner: Spector, Lorraine; Assistant Examiner: Kaufman, Claire
EXNAM
       Ropes & Gray, Vincent, Matthew P., Halstead, David P.
LREP
       Number of Claims: 38
CLMN
       Exemplary Claim: 1
ECL
DRWN
       19 Drawing Figure(s); 19 Drawing Page(s)
LN.CNT 7476
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention concerns the discovery that proteins encoded by a
AB
       family of vertebrate genes, termed here hedgehog-related genes, comprise
       morphogenic signals produced by embryonic patterning centers, and are
       involved in the formation of ordered spatial arrangements of
       differentiated tissues in vertebrates. The present invention
       makes available compositions and methods that can be utilized, for
       example to generate and/or maintain an array of different vertebrate
       tissue both in vitro and in vivo.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
L20 ANSWER 8 OF 35 USPATFULL
AN
       2002:81274 USPATFULL
ΤI
       Methods of making conditioned cell culture medium compositions
       Naughton, Gail K., La Jolla, CA, United States
IN
       Mansbridge, Jonathan N., La Jolla, CA, United States
       Pinney, R. Emmett, Poway, CA, United States
PA
       Advanced Tissue Sciences, Inc., La Jolla, CA, United States (U.S.
       corporation)
PΙ
       US 6372494
                          B1
                               20020416
       US 1999-313538
                               19990514 (9)
AΙ
DT
       Utility
```

Primary Examiner: Spector, Lorraine; Assistant Examiner: O'Hara, Eileen

EXNAM

Pennie & Edmonds LLP

LREP

CLMN Number of Claims: 11 ECL Exemplary Claim: 1

DRWN 0 Drawing Figure(s); 0 Drawing Page(s)

LN.CNT 2008

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Novel products comprising conditioned cell culture medium compositions and methods of use are described. The conditioned cell medium compositions of the invention may be comprised of any known defined or undefined medium and may be conditioned using any eukaryotic cell type. The medium may be conditioned by stromal cells, parenchymal cells, mesenchymal stem cells, liver reserve cells, neural stem cells, pancreatic stem cells and/or embryonic stem cells. Additionally, the cells may be genetically modified. A three-dimensional tissue construct is preferred. Once the cell medium of the invention is conditioned, it may be used in any state. Physical embodiments of the conditioned medium include, but are not limited to, liquid or solid, frozen, lyophilized or dried into a powder. Additionally, the medium is formulated with a pharmaceutically acceptable carrier as a vehicle for internal administration, applied directly to a food item or product, formulated with a salve or ointment for topical applications, or, for example, made into or added to surgical glue to accelerate healing of sutures following invasive procedures. Also, the medium may be further processed to concentrate or reduce one or more factors or components contained within the medium.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 9 OF 35 USPATFULL

AN 2002:78815 USPATFULL

TI Compositions and systems for forming crosslinked biomaterials and associated methods of preparation and use

IN Trollsas, Olof Mikael, Los Gatos, CA, UNITED STATES
Wallace, Donald G., Menlo Park, CA, UNITED STATES
DeLustro, Frank A., Belmont, CA, UNITED STATES

PI US 2002042473 A1 20020411 US 6458889 B2 20021001

AI US 2001-883138 A1 20010615 (9)

RLI Continuation-in-part of Ser. No. US 2000-733739, filed on 8 Dec 2000, GRANTED, Pat. No. US 6323278 Continuation of Ser. No. US 1999-302852, filed on 30 Apr 1999, GRANTED, Pat. No. US 6166130 Continuation of Ser. No. US 1999-229851, filed on 13 Jan 1999, GRANTED, Pat. No. US 6051648 Continuation of Ser. No. US 1996-769806, filed on 18 Dec 1996, GRANTED, Pat. No. US 5874500 Continuation-in-part of Ser. No. US 1995-573799, filed on 18 Dec 1995, ABANDONED Continuation-in-part of Ser. No. US 2000-649337, filed on 28 Aug 2000, PENDING

PRAI US 1999-151273P 19990827 (60)

DT Utility

FS APPLICATION

LREP REED & ASSOCIATES, 800 MENLO AVENUE, SUITE 210, MENLO PARK, CA, 94025

CLMN Number of Claims: 86 ECL Exemplary Claim: 1 DRWN 19 Drawing Page(s)

LN.CNT 3147

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Crosslinkable compositions are provided that readily crosslink in situ to provide biocompatible, nonimmunogenic crosslinked biomaterials. The compositions contain at least three biocompatible, nonimmunogenic components having reactive functional groups thereon, with the functional groups selected so as to enable inter-reaction between the components, i.e., crosslinking. In a preferred embodiment, a first component is polynucleophilic, a second component is polyelectrophilic, and at least one third component contains one or more functional groups reactive with the nucleophilic moieties one the first or second component. At least one of the

components is a polyfunctional hydrophilic polymer; the other components may also comprise hydrophilic polymers, or they may be low molecular weight, typically hydrophobic, crosslinkers. Methods for preparing and using the compositions are also provided. Exemplary uses include tissue augmentation, biologically active agent delivery, bioadhesion, and prevention of adhesions following surgery or injury.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L20 ANSWER 10 OF 35 USPATFULL
       2002:22572 USPATFULL
AN
       Cross-linked polymer compositions and methods for
TТ
       their use
       Rhee, Woonza M., Palo Alto, CA, UNITED STATES
IN
       DeLustro, Frank A., Belmont, CA, UNITED STATES
       Berg, Richard A., Los Altos, CA, UNITED STATES
       US 2002013408
                         A1
                               20020131
PΙ
       US 6534591
                          B2
                               20030318
       US 2001-932536
                          A1
                               20010817 (9)
ДΤ
       Continuation of Ser. No. US 2000-733739, filed on 8 Dec 2000, PENDING
RLI
       Continuation of Ser. No. US 1999-302852, filed on 30 Apr 1999, GRANTED,
       Pat. No. US 6166130 Continuation of Ser. No. US 1999-229851, filed on 13
       Jan 1999, GRANTED, Pat. No. US 6051648 Continuation of Ser. No. US
       1996-769806, filed on 18 Dec 1996, GRANTED, Pat. No. US 5874500
       Continuation-in-part of Ser. No. US 1995-573799, filed on 18 Dec 1995,
       ABANDONED
DT
       Utility
       APPLICATION
FS
       REED & ASSOCIATES, 800 MENLO AVENUE, SUITE 210, MENLO PARK, CA, 94025
LREP
      Number of Claims: 65
CLMN
ECL
       Exemplary Claim: 1
DRWN
       18 Drawing Page(s)
LN.CNT 1719
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Crosslinked polymer compositions comprise a first synthetic
AB
```

Crosslinked polymer compositions comprise a first synthetic polymer containing multiple nucleophilic groups covalently bound to a second synthetic polymer containing multiple electrophilic groups. The first synthetic polymer is preferably a synthetic polypeptide or a polyethylene glycol that has been modified to contain multiple nucleophilic groups, such as primary amino (--NH.sub.2) or thiol (--SH) groups. The second synthetic polymer may be a hydrophilic or hydrophobic synthetic polymer which contains, or has been derivatized to contain, two or more electrophilic groups, such as succinimidyl groups. The compositions may further comprise other components, such as naturally occurring polysaccharides or proteins (such as glycosaminoglycans or collagen) and/or biologically active agents. Also disclosed are methods for using the crosslinked polymer compositions to effect adhesion between a first surface and a second surface; to effect tissue augmentation; to prevent the formation of surgical adhesions; and to coat a surface of a synthetic implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L20 ANSWER 11 OF 35 USPATFULL
AN
       2002:16925 USPATFULL
ΤI
       Scaffold matrix and tissue maintaining systems
IN
      Nevo, Zvi, Herzliya, ISRAEL
      Robinson, Dror, Shimshon, ISRAEL
      RAMOT UNIVERSITY AUTHORITY FOR APPLIED RESEARCH & INDUSTRIAL DEVELOPMENT
PA
      LTD. (non-U.S. corporation)
PΙ
      US 2002009805
                         A1
                               20020124
ΑI
      US 2001-826389
                         A1
                               20010404 (9)
RLI
      Continuation-in-part of Ser. No. US 1999-345138, filed on 6 Jul 1999,
      PENDING
```

DTUtility FS APPLICATION LADAS & PARRY, 26 WEST 61ST STREET, NEW YORK, NY, 10023 LREP Number of Claims: 32 CLMN Exemplary Claim: 1 ECL 10 Drawing Page(s) DRWN LN.CNT 903 The invention concerns a scaffold which is used as a growth supportive AB base for various cells and tissue explants from three-dimensional tissue comprising naturally derived connective or skeletal tissue into attached flakes having a very high porosity. Alternatively the scaffold is composed of fused epiphyses. L20 ANSWER 12 OF 35 USPATFULL 2001:235126 USPATFULL ΑN Hydrogel compositions for controlled delivery of virus vectors ΤI and methods of use thereof Levy, Robert J., Merion Station, PA, United States ΤN Crombleholme, Timothy, Haverford, PA, United States Vyavahare, Narendra, Erial, NJ, United States The Children's Hospital of Philadelphia, Philadelphia, PA, United States PA (U.S. corporation) US 6333194 B1 20011225 рT US 2000-487854 20000119 (9) AΙ US 1999-116538P 19990119 (60) PRAI Utility DT GRANTED FS EXNAM Primary Examiner: Wang, Andrew; Assistant Examiner: Zara, Jane Foley & Lardner LREP CLMN Number of Claims: 34 ECL Exemplary Claim: 1 9 Drawing Figure(s); 3 Drawing Page(s) DRWN LN.CNT 3154 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The invention relates to compositions and methods for delivering a virus AB vector to an animal. The compositions include compositions which comprise a hydrogel matrix (e.g. a collagen matrix which can comprise a poloxamer or an alginate) containing a virus vector therein in a transfectious form. The invention also includes methods of making such hydrogel precursor mixtures and hydrogel matrices, including particles, devices, bulk materials, and other objects which comprise, consist of, or are coated with such mixtures or matrices. The invention further relates to compositions comprising a hydrogel precursor mixture having a virus vector suspended therein, which, when administered to an animal, gel to form a hydrogel matrix containing a virus vector therein in a transfectious form. Methods of delivering a virus vector to an animal tissue are also described. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L20 ANSWER 13 OF 35 USPATFULL 2001:229880 USPATFULL AN Method for composite cell-based implants ΥT ΤN Frondoza, Carmelita G., Woodstock, MD, United States Hungerford, David S., Cockeysville, MD, United States Shikani, Alan H., Ruxton, MD, United States Domb, Abraham J., Efrat, Israel Fink, David J., Baltimore, MD, United States Bloom, Leonard, Owings Mills, MD, United States

Chondros, Inc. (U.S. corporation)

A1

20011213

US 2001051834

PA PT

20010806 (9) US 2001-922909 A1 AΤ Continuation-in-part of Ser. No. US 2001-825632, filed on 4 Apr 2001, RLI PENDING Continuation-in-part of Ser. No. US 2000-712662, filed on 14 Nov 2000, PENDING Continuation-in-part of Ser. No. US 1999-275319, filed on 24 Mar 1999, PENDING Utility DTAPPLICATION FS LEONARD BLOOM & ASSOCIATES, LLC, Suite 905, 401 Washington Avenue, LREP Towson, MD, 21204 CLMN Number of Claims: 70 Exemplary Claim: 1 ECL DRWN 4 Drawing Page(s) LN.CNT 833 CAS INDEXING IS AVAILABLE FOR THIS PATENT. This invention is a method for the implantation of a combination of cells or cell-microcarrier aggregates wherein one component comprises a solid implantable construct and a second component comprises an injectable formulation. For example, in one embodiment, the solid implant may be first implanted to fill the majority of the cavity receiving the implant, and then cells or cell-microcarrier aggregates in an injectable format, with or without the addition of gelling materials to promote rapid gelling in situ, may be injected into spaces surrounding the solid implant in order to secure the solid implant in the site and/or to promote rapid adherence and/or integration of the solid implant to surrounding tissues. Also contemplated in this embodiment is that the cellular composition of the injectable component may differ from that of the solid component. For example, the solid implant may result from the culturing of chondrocytes on microcarriers or scaffolds, thereby resulting in an implant having cartilage-like properties, whereas the injectable cells or aggregates may result from the culturing of stem cells, resulting thereby in cells capable of producing cells of a chondrogenic, fibroblastic, myoblastic or osteoblastic phenotype. In this example, cells in the injectable aggregates may promote the fixation to or rapid integration of the solid cartilage implant into surrounding cartilage, connective tissue , muscle or bone, respectively. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L20 ANSWER 14 OF 35 USPATFULL 2001:152941 USPATFULL ANInjectable hyaluronate-sulfated polysaccharide conjugates TISpiro, Robert C., Half Moon Bay, CA, United States IN Liu, LinShu, Sunnyvale, CA, United States Orquest, Inc., Mountain View, CA, United States (U.S. corporation) PA US 6288043 ΡI В1 20010911 US 1999-336005 19990618 (9) ΑI DT Utility GRANTED FS EXNAM Primary Examiner: Fonda, Kathleen K. Fish & Richardson, PC LREP Number of Claims: 24 CLMN ECL Exemplary Claim: 1 DRWN 5 Drawing Figure(s); 3 Drawing Page(s) LN.CNT 476 CAS INDEXING IS AVAILABLE FOR THIS PATENT. An injectable composition is provided for promoting bone and/or AB cartilage growth comprising hyaluronic acid crosslinked to sulfated polysaccharide through linking groups. The linking groups are diamines or amino polyalkylene glycols. The sulfated polysaccharide binds growth factors

suitable for promoting tissue growth at the site of

application of the composition.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

EXNAM

LREP

CLMN

Ropes & Gray

Number of Claims: 27

```
ANSWER 15 OF 35 USPATFULL
L20
       2001:126124 USPATFULL
AN
       Nucleic acids encoding hedgehog proteins
TI
       Ingham, Philip W., Summertown, United Kingdom
IN
       McMahon, Andrew P., Lexington, MA, United States
       Tabin, Clifford J., Cambridge, MA, United States
       President & Fellows of Harvard College, Cambridge, MA, United States
PA
       (U.S. corporation)
       Imperial Cancer Research Technology, Ltd., United Kingdom (non-U.S.
       corporation)
                               20010807
       US 6271363
                          B1
PΙ
                               19971020 (8)
       US 1997-954698
ΑI
       Continuation of Ser. No. US 1995-462386, filed on 5 Jun 1995
RLI
       Continuation-in-part of Ser. No. US 1995-435093, filed on 4 May 1995
       Continuation-in-part of Ser. No. US 1994-356060, filed on 14 Dec 1994,
       now patented, Pat. No. US 5844079 Continuation-in-part of Ser. No. US
       1993-176427, filed on 30 Dec 1993, now patented, Pat. No. US 5789543
ÐΤ
       Utility
FŞ
       GRANTED
       Primary Examiner: Spector, Lorraine; Assistant Examiner: Kaufman, Claire
EXNAM
       Foley, Hoag & Eliot, LLP, Vincent, Matthew P., Varma, Anita
LREP
       Number of Claims: 38
CLMN
ECL
       Exemplary Claim: 2
       19 Drawing Figure(s); 19 Drawing Page(s)
DRWN
LN.CNT 7491
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention concerns the discovery that proteins encoded by a
       family of vertebrate genes, termed here hedgehog-related genes, comprise
       morphogenic signals produced by embryonic patterning centers, and are
       involved in the formation of ordered spatial arrangements of
       differentiated tissues in vertebrates. The present invention
       makes available compositions and methods that can be utilized, for
       example to generate and/or maintain an array of different vertebrate
       tissue both in vitro and in vivo.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 16 OF 35 USPATFULL
L20
       2001:112054 USPATFULL
AN
       Screening assays for hedgehog agonists and antagonists
TI
       Marigo, Valeria, Brookline, MA, United States
IN
       Tabin, Clifford J., Cambridge, MA, United States
       Ingham, Philip W., Summertown, United Kingdom
       McMahon, Andrew P., Lexington, MA, United States
       Imperial Cancer Res. Technology, United Kingdom (non-U.S. corporation)
PA
       President & Fellows of Harvard College, Cambridge, MA, United States
       (U.S. corporation)
       US 6261786
                          В1
                               20010717
PΙ
       US 1996-674509
                               19960702 (8)
ΑI
       Continuation-in-part of Ser. No. US 1995-460900, filed on 5 Jun 1995,
RLI
       now patented, Pat. No. US 6156747 Continuation-in-part of Ser. No. US
       1995-462386, filed on 5 Jun 1995 Continuation-in-part of Ser. No. US
       1995-435093, filed on 4 May 1995, now abandoned Continuation-in-part of
       Ser. No. US 1994-356060, filed on 14 Dec 1994, now patented, Pat. No. US
       5844079 Continuation-in-part of Ser. No. US 1993-176427, filed on 30 Dec
       1993, now patented, Pat. No. US 5789543
DT
       Utility
FS
       GRANTED
```

Primary Examiner: Kunz, Gary L.; Assistant Examiner: Kaufman, Claire M.

Exemplary Claim: 1 ECL 25 Drawing Figure(s); 21 Drawing Page(s) DRWN LN.CNT 8121 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention concerns the discovery that proteins encoded by a family of vertebrate genes, termed here hedgehog-related genes, comprise morphogenic signals produced by embryonic patterning centers, and are involved in the formation of ordered spatial arrangements of differentiated tissues in vertebrates. The present invention makes available compositions and methods that can be utilized, for example to generate and/or maintain an array of different vertebrate tissue both in vitro and in vivo. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L20 ANSWER 17 OF 35 USPATFULL 2001:90979 USPATFULL AN ΤI Method of making crosslinked polymer matrices in tissue treatment applications Rhee, Woonza M., Palo Alto, CA, United States TN DeLustro, Frank A., Belmont, CA, United States Berg, Richard A., Los Altos, CA, United States 20010607 PΙ US 2001003126 Al 20011127 US 6323278 B2 US 2000-733739 A1 20001208 (9) AΤ Continuation of Ser. No. US 1999-302852, filed on 30 Apr 1999, PENDING RLI Continuation of Ser. No. US 1999-229851, filed on 13 Jan 1999, PENDING Continuation of Ser. No. US 1996-769806, filed on 18 Dec 1996, GRANTED, Pat. No. US 5874500 Continuation-in-part of Ser. No. US 1995-539799, filed on 5 Oct 1995, ABANDONED DTUtility FS APPLICATION Laurie A. Axford, Morrison & Foerster LLP, Suite 500, 3811 Valley Centre LREP Drive, San Diego, CA, 92130-2332 Number of Claims: 65 CLMN ECL Exemplary Claim: 1 DRWN 18 Drawing Page(s) LN.CNT 1746 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Crosslinked polymer compositions comprise a first synthetic polymer containing multiple nucleophilic groups covalently bound to a second synthetic polymer containing multiple electrophilic groups. The first synthetic polymer is preferably a synthetic polypeptide or a polyethylene glycol that has been modified to contain multiple nucleophilic groups, such as primary amino (--NH.sub.2) or thiol (--SH) groups. The second synthetic polymer may be a hydrophilic or hydrophobic synthetic polymer which contains, or has been derivatized to contain, two or more electrophilic groups, such as succinimidyl groups. The compositions may further comprise other components, such as naturally occurring polysaccharides or proteins (such as glycosaminoglycans or collagen) and/or biologically active agents. Also disclosed are methods for using the crosslinked polymer compositions to effect adhesion between a first surface and a second surface; to effect tissue augmentation; to prevent the formation of surgical adhesions; and to coat a surface of a synthetic implant. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L20 ANSWER 18 OF 35 USPATFULL AN 2000:174756 USPATFULL Method of using crosslinked polymer compositions in TI

tissue treatment applications

Rhee, Woonza M., Palo Alto, CA, United States DeLustro, Frank A., Belmont, CA, United States

IN

Berg, Richard A., Los Altos, CA, United States Cohesion Technologies, Inc., Palo Alto, CA, United States (U.S. PA corporation) 20001226 ΡI US 6166130 US 1999-302852 19990430 (9) ΑI Continuation of Ser. No. US 1999-229851, filed on 13 Jan 1999, now RLI patented, Pat. No. US 6051648 which is a continuation of Ser. No. US 1996-769806, filed on 18 Dec 1996, now patented, Pat. No. US 5874500, issued on 23 Feb 1999 which is a continuation-in-part of Ser. No. US 1995-573799, filed on 18 Dec 1995, now abandoned DТ Utility Granted FS EXNAM Primary Examiner: Nutter, Nathan M. Morrison & Foester, LLP LREP Number of Claims: 13 CLMN Exemplary Claim: 1 ECL 18 Drawing Figure(s); 18 Drawing Page(s) DRWN LN.CNT 1635 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Crosslinked polymer compositions comprise a first synthetic polymer containing multiple nucleophilic groups covalently bound to a second synthetic polymer containing multiple electrophilic groups. The first synthetic polymer is preferably a synthetic polypeptide or a polyethylene glycol that has been modified to contain multiple nucleophilic groups, such as primary amino (--NH.sub.2) or thiol (--SH) groups. The second synthetic polymer may be a hydrophilic or hydrophobic synthetic polymer which contains, or has been derivatized to contain, two or more electrophilic groups, such as succinimidyl groups. The compositions may further comprise other components, such as naturally occurring polysaccharides or proteins (such as glycosaminoglycans or collagen) and/or biologically active agents. Also disclosed are methods for using the crosslinked polymer compositions to effect adhesion between a first surface and a second surface; to effect tissue augmentation; to prevent the formation of surgical adhesions; and to coat a surface of a synthetic implant. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 19 OF 35 USPATFULL L20 2000:174376 USPATFULL AN Nucleic acids encoding hedgehog proteins ΤТ TN Ingham, Philip W., Summertown, United Kingdom McMahon, Andrew P., Lexington, MA, United States Tabin, Clifford J., Cambridge, MA, United States Bumcrot, David A., Belmont, MA, United States Marti-Gorostiza, Elisa, Brookline, MA, United States President & Fellows of Harvard College, Cambridge, MA, United States PA (U.S. corporation) Imperial Cancer Research Technology, Ltd., United Kingdom (non-U.S. corporation) PΙ US 6165747 20001226 US 1995-460900 19950605 (8) AΤ Continuation-in-part of Ser. No. US 1995-435093, filed on 4 May 1995 RLI which is a continuation-in-part of Ser. No. US 1994-356060, filed on 14 Dec 1994, now patented, Pat. No. US 5844079 which is a continuation-in-part of Ser. No. US 1993-176427, filed on 30 Dec 1993, now patented, Pat. No. US 5789543 DTUtility FS Granted Primary Examiner: Kunz, Gary L.; Assistant Examiner: Kaufman, Claire M. EXNAM Foley, Hoag & Eliot, LLP, Vincent, Matthew P., Varma, Anita LREP CLMN Number of Claims: 50 ECL Exemplary Claim: 1 DRWN 17 Drawing Figure(s); 19 Drawing Page(s)

LN.CNT 9236 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention concerns the discovery that proteins encoded by a AB family of vertebrate genes, termed here hedgehog-related genes, comprise morphogenic signals produced by tissue patterning centers, and are involved in the formation of ordered spatial arrangements of differentiated tissues in vertebrates. The present invention makes available compositions and methods that can be utilized, for example to generate and/or maintain an array of different vertebrate tissue both in vitro and in vivo. CAS INDEXING IS AVAILABLE FOR THIS PATENT. L20 ANSWER 20 OF 35 USPATFULL 2000:128306 USPATFULL ANChitin hydrogels, methods of their production and use TIDrohan, William N., Springfield, VA, United States IN MacPhee, Martin J., Gaithersburg, MD, United States Miekka, Shirley I., Gaithersburg, MD, United States Singh, Manish S., Columbia, MD, United States Elson, Clive, Halifax, Canada Taylor, Jr., John R., New York, NY, United States Chitogenics, Inc., Morristown, NJ, United States (U.S. corporation) PA The American National Red Cross, Washington, DC, United States (U.S. corporation) Coalition for Hemophilia B, New York, NY, United States (U.S. corporation) PΙ US 6124273 20000926 19971013 (8) US 1997-960555 ΑI Continuation of Ser. No. US 1996-659999, filed on 7 Jun 1996, now RLIabandoned US 1995-109P 19950609 (60) PRAI DT Utility FS Granted Primary Examiner: Fonda, Kathleen K. EXNAM Lahive & Cockfield, LLP LREP Number of Claims: 32 CLMN Exemplary Claim: 1 ECL DRWN 6 Drawing Figure(s); 3 Drawing Page(s) LN.CNT 2441 CAS INDEXING IS AVAILABLE FOR THIS PATENT. This invention is directed to the preparation and utilization of supplemented chitin hydrogels, such as chitosan hydrogels. Further provided are biomaterials comprising same. The particular supplement delivered by the chitin hydrogel is selected as a function of its intended use. In one embodiment, this invention provides a composition of matter, comprising a chitin hydrogel or chitin-derived hydrogel, wherein the hydrogel does not inhibit full-thickness skin wound healing. CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
L20 ANSWER 21 OF 35 USPATFULL
       2000:47305 USPATFULL
AN
       Crosslinked polymer compositions and methods for their use
ΤI
       Rhee, Woonza M., Palo Alto, CA, United States
IN
       DeLustro, Frank A., Belmont, CA, United States
       Berg, Richard A., Los Altos, CA, United States
       Cohesion Technologies, Inc., Palo Alto, CA, United States (U.S.
PΑ
       corporation)
PΙ
       US 6051648
                               20000418
       US 1999-229851
                               19990113 (9)
ΑI
       Continuation of Ser. No. US 1996-769806, filed on 19 Dec 1996, now
RLI
```

patented, Pat. No. US 5874500, issued on 23 Feb 1999 which is a continuation-in-part of Ser. No. US 1995-573799, filed on 18 Dec 1995, now abandoned

DT Utility FS Granted

EXNAM Primary Examiner: Nutter, Nathan M. LREP Foley & Lardner, Axford, Laurie A.

CLMN Number of Claims: 19 ECL Exemplary Claim: 1

DRWN 19 Drawing Figure(s); 18 Drawing Page(s)

LN.CNT 1627

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Crosslinked polymer compositions comprise a first synthetic polymer containing multiple nucleophilic groups covalently bound to a second synthetic polymer containing multiple electrophilic groups. The first synthetic polymer is preferably a synthetic polypeptide or a polyethylene glycol that has been modified to contain multiple nucleophilic groups, such as primary amino (--NH.sub.2) or thiol (--SH) groups. The second synthetic polymer may be a hydrophilic or hydrophobic synthetic polymer which contains, or has been derivatized to contain, two or more electrophilic groups, such as succinimidyl groups. The compositions may further comprise other components, such as naturally occurring polysaccharides or proteins (such as glycosaminoglycans or collagen) and/or biologically active agents. Also disclosed are methods for using the crosslinked polymer compositions to effect adhesion between a first surface and a second surface; to effect tissue augmentation; to prevent the formation of surgical adhesions; and to coat a surface of a synthetic implant.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 22 OF 35 USPATFULL

AN 2000:44203 USPATFULL

TI Compositions and therapeutic methods using morphogenic proteins and stimulatory factors

IN Lee, John C., San Antonio, TX, United States
Yeh, Lee-Chuan C., San Antonio, TX, United States

PA Stryker Corporation, Kalamazoo, MI, United States (U.S. corporation)

PI US 6048964 20000411 AI US 1995-570752 19951212 (8)

DT Utility FS Granted

EXNAM Primary Examiner: Nutter, Nathan M.

LREP Fish & Neave, Haley, Jr., James F., Ruskin, Barbara A.

CLMN Number of Claims: 21 ECL Exemplary Claim: 1

DRWN 12 Drawing Figure(s); 12 Drawing Page(s)

LN.CNT 3062

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention provides pharmaceutical compositions comprising a morphogenic protein stimulatory factor (MPSF) for improving the tissue inductive activity of morphogenic proteins, particularly those belonging to the BMP protein family. Methods for improving the tissue inductive activity of a morphogenic protein in a mammal using those compositions are provided. This invention also provides implantable morphogenic devices comprising a morphogenic protein and a MPSF disposed within a carrier, that are capable of inducing tissue formation in allogeneic and xenogeneic implants. Methods for inducing local tissue formation from a progenitor cell in a mammal using those devices are also provided. A method for accelerating allograft repair in a mammal using morphogenic devices is provided. This invention also provides a prosthetic device comprising a prosthesis coated with a morphogenic protein and a MPSF, and a method for promoting in vivo

integration of an implantable prosthetic device to enhance the bond strength between the **prosthesis** and the existing target **tissue** at the joining site. Methods of treating **tissue** degenerative conditions in a mammal using the pharmaceutical compositions are also provided.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 23 OF 35 USPATFULL 1999:106108 USPATFULL ΑN Compositions and therapeutic methods using morphogenic proteins and TТ stimulatory factors Lee, John C., San Antonio, TX, United States IN Yeh, Lee-Chuan C., San Antonio, TX, United States Stryker Corporation, Kalamazoo, MI, United States (U.S. corporation) PΑ 19990907 US 5948428 PΙ 19961206 (8) US 1996-761468 ΑI Continuation-in-part of Ser. No. US 1995-570752, filed on 12 Dec 1995 RLI DTUtility Granted FS Primary Examiner: Azpuru, Carlos EXNAM Fish & Neave, Haley, James F., Ruskin, Barbara A. LREP Number of Claims: 78 CLMN Exemplary Claim: 1 ECL 17 Drawing Figure(s); 16 Drawing Page(s) DRWN LN.CNT 3767 CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention provides pharmaceutical compositions comprising a AB morphogenic protein stimulatory factor (MPSF) for improving the tissue inductive activity of morphogenic proteins, particularly those belonging to the BMP protein family. Methods for improving the tissue inductive activity of a morphogenic protein in a mammal using those compositions are provided. This invention also provides implantable morphogenic devices comprising a morphogenic protein and a MPSF disposed within a carrier, that are capable of inducing tissue formation in allogeneic and xenogeneic implants. Methods for inducing local tissue formation from a progenitor cell in a mammal using those devices are

capable of inducing tissue formation in allogeneic and xenogeneic implants. Methods for inducing local tissue formation from a progenitor cell in a mammal using those devices are also provided. A method for accelerating allograft repair in a mammal using morphogenic devices is provided. This invention also provides a prosthetic device comprising a prosthesis coated with a morphogenic protein and a MPSF, and a method for promoting in vivo integration of an implantable prosthetic device to enhance the bond strength between the prosthesis and the existing target

tissue at the joining site. Methods of treating tissue degenerative conditions in a mammal using the pharmaceutical compositions are also provided.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
ANSWER 24 OF 35 USPATFULL
L20
       1999:99644 USPATFULL
AN
       Methods and compositions for multiple gene transfer into bone cells
TΙ
       Bonadio, Jeffrey, Ann Harbor, MI, United States
IN
       Goldstein, Steven A., Ann Harbor, MI, United States
       The Regent of The University of Michigan, Ann Arbor, MI, United States
PA
       (U.S. corporation)
       US 5942496
                               19990824
PТ
AΙ
       US 1994-316650
                               19940930 (8)
       Continuation-in-part of Ser. No. US 1994-199780, filed on 18 Feb 1994,
RLI
       now patented, Pat. No. US 5763416
DT
       Utility
FS
       Granted
       Primary Examiner: Campell, Bruce R.; Assistant Examiner: Nguyen, Dave
EXNAM
```

Trong

LREP Arnold White & Durkee CLMN Number of Claims: 130

ECL Exemplary Claim: 1

DRWN 26 Drawing Figure(s); 14 Drawing Page(s)

LN.CNT 5310

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Disclosed are methods, compositions, kits and devices for use in transferring nucleic acids into bone cells in situ and/or for stimulating bone progenitor cells. Type II collagen and, particularly, osteotropic genes, are shown to stimulate bone progenitor cells and to promote bone growth, repair and regeneration in vivo. Gene transfer protocols are disclosed for use in transferring various nucleic acid materials into bone, as may be used in treating various bone-related diseases and defects including fractures, osteoporosis, osteogenesis imperfecta and in connection with bone implants.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 25 OF 35 USPATFULL

AN 1999:72563 USPATFULL

TI Compositions and therapeutic methods using morphogenic proteins and stimulatory factors

IN Lee, John C., San Antonio, TX, United States
Yeh, Lee-Chuan C., San Antonio, TX, United States

PA Stryker Corporation, Kalamazoo, MI, United States (U.S. corporation)

PI US 5916870 19990629

AI US 1998-158220 19980922 (9)

RLI Division of Ser. No. US 1998-27873, filed on 23 Feb 1998 which is a division of Ser. No. US 1995-570752, filed on 12 Dec 1995

DT Utility FS Granted

EXNAM Primary Examiner: Nutter, Nathan M.

LREP Fish & Neave, Haley, James F., Ruskin, Barbara A.

CLMN Number of Claims: 42 ECL Exemplary Claim: 1

DRWN 12 Drawing Figure(s); 12 Drawing Page(s)

LN.CNT 3176

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

The present invention provides pharmaceutical compositions comprising a morphogenic protein stimulatory factor (MPSF) for improving the tissue inductive activity of morphogenic proteins, particularly those belonging to the BMP protein family. Methods for improving the tissue inductive activity of a morphogenic protein in a mammal using those compositions are provided. This invention also provides implantable morphogenic devices comprising a morphogenic protein and a MPSF disposed within a carrier, that are capable of inducing tissue formation in allogeneic and xenogeneic implants. Methods for inducing local tissue formation from a progenitor cell in a mammal using those devices are also provided. A method for accelerating allograft repair in a mammal using morphogenic devices is provided. This invention also provides a prosthetic device comprising a prosthesis coated with a morphogenic protein and a MPSF, and a method for promoting in vivo integration of an implantable prosthetic device to enhance the bond strength between the prosthesis and the existing target tissue at the joining site. Methods of treating tissue degenerative conditions in a mammal using the pharmaceutical compositions are also provided.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 26 OF 35 USPATFULL AN 1999:36949 USPATFULL

```
TI
       Engineering oral tissues
       Mooney, David J., Ann Arbor, MI, United States
TN
       Rutherford, Robert B., Ann Arbor, MI, United States
       The Regents of the University of Michigan, Ann Arbor, MI, United States
PA
       (U.S. corporation)
PΙ
       US 5885829
                               19990323
       US 1997-864494
                               19970528 (8)
ΑI
       US 1996-18450P
                           19960528 (60)
PRAI
DT
       Utility
       Granted
FS
EXNAM Primary Examiner: Degen, Nancy
       Arnold, White & Durkee
       Number of Claims: 109
CLMN
ECL
       Exemplary Claim: 1
       17 Drawing Figure(s); 11 Drawing Page(s)
DRWN
LN.CNT 8001
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Disclosed are methods for regenerating dental and oral tissues
       from viable cells using ex vivo culture on a structural matrix. The
       regenerated oral tissues and tissue-matrix
       preparations thus provided have both clinical applications in dentistry
       and oral medicine and are also useful in in vitro toxicity and
       biocompatibility testing.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
     ANSWER 27 OF 35 USPATFULL
L20
       1999:24717 USPATFULL
AN
       Crosslinked polymer compositions and methods for their use
TI
IN
       Rhee, Woonza M., Palo Alto, CA, United States
       DeLustro, Frank A., Belmont, CA, United States
       Berg, Richard A., Los Altos, CA, United States
       Cohesion Technologies, Inc., Palo Alto, CA, United States (U.S.
PA
       corporation)
       US 5874500
                               19990223
PΤ
AΤ
       US 1996-769806
                               19961218 (8)
       Continuation-in-part of Ser. No. US 1995-573799, filed on 18 Dec 1995,
RLI
       now abandoned
DT
       Utility
       Granted
FS
EXNAM
      Primary Examiner: Nutter, Nathan M.
       Fish & Richardson P.C.
LREP
CLMN
       Number of Claims: 34
       Exemplary Claim: 1
ECL
       19 Drawing Figure(s); 18 Drawing Page(s)
DRWN
LN.CNT 1713
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Crosslinked polymer compositions comprise a first synthetic
      polymer containing multiple nucleophilic groups covalently bound to a
       second synthetic polymer containing multiple electrophilic groups. The
       first synthetic polymer is preferably a synthetic polypeptide or a
       polyethylene glycol that has been modified to contain multiple
       nucleophilic groups, such as primary amino (--NH.sub.2) or thiol (--SH)
       groups. The second synthetic polymer may be a hydrophilic or hydrophobic
       synthetic polymer which contains, or has been derivatized to contain,
       two or more electrophilic groups, such as succinimidyl groups. The
       compositions may further comprise other components, such as naturally
       occurring polysaccharides or proteins (such as glycosaminoglycans or
       collagen) and/or biologically active agents. Also disclosed are
       methods for using the crosslinked polymer compositions to
      effect adhesion between a first surface and a second surface; to effect
       tissue augmentation; to prevent the formation of surgical
       adhesions; and to coat a surface of a synthetic implant.
```

LN.CNT 7618

```
T<sub>1</sub>2.0
     ANSWER 28 OF 35 USPATFULL
       1998:162472 USPATFULL
AN
       Compositions and therapeutic methods using morphogenic proteins and
TI
       stimulatory factors
       Lee, John C., San Antonio, TX, United States
IN
       Yeh, Lee-Chuan C., San Antonio, TX, United States
       Stryker Corporation, Kalamazoo, MI, United States (U.S. corporation)
PA
       US 5854207
                               19981229
PΙ
       US 1998-27873
                               19980223
ΑI
       Division of Ser. No. US 1995-570752, filed on 12 Dec 1995
RLI
DT
       Utility
FS
       Granted
       Primary Examiner: Nutter, Nathan M.
EXNAM
       Fish & Neave, Haley, Jr., James F., Ruskin, Barbara A.
       Number of Claims: 28
CLMN
ECL
       Exemplary Claim: 1
       12 Drawing Figure(s); 12 Drawing Page(s)
DRWN
LN.CNT 3072
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       The present invention provides pharmaceutical compositions comprising a
       morphogenic protein stimulatory factor (MPSF) for improving the
       tissue inductive activity of morphogenic proteins, particularly
       those belonging to the BMP protein family. Methods for
       improving the tissue inductive activity of a morphogenic
       protein in a mammal using those compositions are provided. This
       invention also provides implantable morphogenic devices comprising a
       morphogenic protein and a MPSF disposed within a carrier, that are
       capable of inducing tissue formation in allogeneic and
       xenogeneic implants. Methods for inducing local tissue
       formation from a progenitor cell in a mammal using those devices are
       also provided. A method for accelerating allograft repair in a mammal
       using morphogenic devices is provided. This invention also provides a
       prosthetic device comprising a prosthesis coated with a
       morphogenic protein and a MPSF, and a method for promoting in vivo
       integration of an implantable prosthetic device to enhance the bond
       strength between the prosthesis and the existing target
       tissue at the joining site. Methods of treating tissue
       degenerative conditions in a mammal using the pharmaceutical
       compositions are also provided.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
    ANSWER 29 OF 35 USPATFULL
L20
AN
       1998:151078 USPATFULL
TI
       Vertebrate embryonic pattern-inducing proteins, and uses related thereto
       Ingham, Philip W., Summertown, England
IN
       McMahon, Andrew P., Lexington, MA, United States
       Tabin, Clifford J., Cambridge, MA, United States
       President and Fellows of Harvard College, Cambridge, MA, United States
PΑ
       (U.S. corporation)
PΙ
       US 5844079
                               19981201
       US 1994-356060
ΑI
                               19941214 (8)
RLT
       Continuation-in-part of Ser. No. US 1993-176427, filed on 30 Dec 1993
DT
       Utility
FS
       Granted
EXNAM
       Primary Examiner: Walsh, Stephen; Assistant Examiner: Sorensen, Kenneth
LREP
       Vincent, Matthew P., Arnold, Beth E.Foley, Hoaq & Eliot LLP
CLMN
       Number of Claims: 41
ECL
       Exemplary Claim: 1
DRWN
       22 Drawing Figure(s); 21 Drawing Page(s)
```

CAS INDEXING IS AVAILABLE FOR THIS PATENT. The present invention concerns the discovery that proteins encoded by a AB family of vertebrate genes, termed here hedgehog-related genes, comprise morphogenic signals produced by embryonic patterning centers, and are involved in the formation of ordered spatial arrangements of differentiated tissues in vertebrates. The present invention makes available compositions and methods that can be utilized, for example to generate and/or maintain an array of different vertebrate tissue both in vitro and in vivo. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 30 OF 35 USPATFULL T<sub>1</sub>2.0 95:50164 USPATFULL ΔN TGF-.beta.formulation for inducing bone growth ΤI Ammann, Arthur J., 460 Point San Bruno Blvd., South San Francisco, CA, TN United States 94080-4990 Beck, Steven L., 460 Point San Bruno Blvd., South San Francisco, CA, United States 94080-4990 Nguyen, Tue H., 460 Point San Bruno Blvd., South San Francisco, CA, United States 94080-4990 Ongpipattanakul, Boonsri, 460 Point San Bruno Blvd., South San Francisco, CA, United States 94080-4990 Rudman, Christopher G., 460 Point San Bruno Blvd., South San Francisco, CA, United States 94080-4990 PΤ US 5422340 19950606 US 1994-255844 19940608 (8) ΑI Continuation of Ser. No. US 1993-3365, filed on 12 Jan 1993, now RLI patented, Pat. No. US 4733364 which is a continuation-in-part of Ser. No. US 1991-790856, filed on 11 Nov 1991, now abandoned which is a division of Ser. No. US 1989-401906, filed on 1 Sep 1989, now patented, Pat. No. US 5158934, issued on 27 Oct 1992 DТ Utility FS Granted EXNAM Primary Examiner: Schain, Howard E.; Assistant Examiner: Touzeau, P. CLMN Number of Claims: 17 Exemplary Claim: 1 ECL 10 Drawing Figure(s); 10 Drawing Page(s) DRWN LN.CNT 2343 A formulation suitable for inducing bone formation contains about 0.5 AB .mu.g to about 5 mg of transforming growth factor -.beta. and about 140 mg to about 50 g of tricalcium phosphate and excludes a bone morphogenetic cofactor. In another embodiment, the formulation contains about 0.5 .mu.g to 5 mg transforming growth factor-.beta., about 140 mg to 50 g of tricalcium phosphate particles, and an amount of amylopectin ranging from about 01:1 to 1:1 amylopectin:tricalcium phosphate. L20 ANSWER 31 OF 35 USPATFULL 94:55593 USPATFULL AN ΤI Biologically inert, biocompatible-polymer conjugates Rhee, Woonza, Palo Alto, CA, United States TN Wallace, Donald G., Menlo Park, CA, United States Michaels, Alan S., Boston, MA, United States Burns, Jr., Ramon A., Fremont, CA, United States Fries, Louis, Los Altos, CA, United States DeLustro, Frank, Belmont, CA, United States Bentz, Hanne, Newark, CA, United States Collagen Corporation, Palo Alto, CA, United States (U.S. corporation) PΑ PΙ US 5324775 19940628

19920702 (7)

Continuation-in-part of Ser. No. US 1989-433441, filed on 14 Nov 1989,

ΑI

RLI

US 1992-907518

now patented, Pat. No. US 5162430 which is a continuation-in-part of Ser. No. US 1988-274071, filed on 21 Nov 1988, now abandoned

DT Utility FS Granted

EXNAM Primary Examiner: Nutter, Nathan M.

LREP Bozicevic, Karl
CLMN Number of Claims: 14
ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 1519

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

Pharmaceutically acceptable, non-immunogenic compositions are formed by AB covalently binding biologically inactive, natural, biocompatible polymer to pharmaceutically pure, synthetic, hydrophilic polymers via specific types of chemical bonds to provide biocompatible conjugates. The synthetic hydrophilic polymer may be polyethylene glycol and derivatives thereof having a weight average molecular weight over a range of from about 100 to about 20,000. The compositions may include other components such as liquid, pharmaceutically acceptable, carriers to form injectable formulations, and/or biologically active proteins such as growth factors. The conjugates of the invention generally contain large amounts of water when formed. The conjugates can be dehydrated to form a relatively solid object. The dehydrated, solid object can be ground into particles which can be suspended in a non-aqueous fluid such as an oil and injected into a living (preferably human) being for the purpose of providing soft tissue augmentation. Once in place, the particles rehydrate and expand in size five fold or more.

# CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L20 ANSWER 32 OF 35 USPATFULL

AN 92:16684 USPATFULL

TI Method for promoting soft connective **tissue** growth and repair in mammals

IN Eppley, Barry L., 8360 Lakeshore Cir., Indianapolis, IN, United States 46250

Krukowski, Marilyn D., 24 Washington Ter., St. Louis, MO, United States 63112

Osdoby, Philip A., 16206 Berry Hollow Ct., Ballwin, MO, United States 63011

PI US 5092883 19920303 AI US 1990-626844 19901213 (7)

RLI Continuation-in-part of Ser. No. US 1988-291175, filed on 28 Dec 1988, now patented, Pat. No. US 4988358

DT Utility FS Granted

EXNAM Primary Examiner: Isabella, David J.; Assistant Examiner: Brittingham, Debra S.

LREP Robbins & Robbins
CLMN Number of Claims: 16
ECL Exemplary Claim: 1

DRWN No Drawings

LN.CNT 574

A material with chemically induced surface charges is employed to foster formation of mammalian hard and soft connective tissues. The material may be in the form of beads such as ion exchange resins. Bead materials with a negative surface charge stimulate formation of hard tissue within long bones and foster bony repair of defects in parietal bones and in mandibular rami. Beads with positively charged surfaces engender formation of large quantities of soft dense connective tissue when implanted into defects in the cranium or when used as an onlay on the nasal bone surface. The use of such beads or other charged biodegradable materials and the use of other surface charged

materials with different physical configurations provides significant improvement in hard and soft connective tissue repair, augmentation and replacement in medical fields such as orthopaedic and maxillofacial surgery.

```
L20 ANSWER 33 OF 35 USPAT2
       2002:78815 USPAT2
AN
       Compositions and systems for forming crosslinked
TI
       biomaterials and associated methods of preparation and use
       Trollsas, Olof Mikael, Los Gatos, CA, United States
IN
       Wallace, Donald G., Menlo Park, CA, United States
       DeLustro, Frank A., Belmont, CA, United States
PΑ
       Cohesion Technologies, Inc., Palo Alto, CA, United States (U.S.
       corporation)
       US 6458889
                          B2
                               20021001
PΙ
                               20010615 (9)
ΑI
       US 2001-883138
       Continuation-in-part of Ser. No. US 2000-733739, filed on 8 Dec 2000,
RLI
       now patented, Pat. No. US 6323278 Continuation-in-part of Ser. No. US
       2000-649337, filed on 28 Aug 2000 Continuation of Ser. No. US
       1999-302852, filed on 30 Apr 1999, now patented, Pat. No. US 6166130,
       issued on 26 Dec 2000 Continuation of Ser. No. US 1999-229851, filed on
       13 Jan 1999, now patented, Pat. No. US 6051648, issued on 18 Apr 2000
       Continuation of Ser. No. US 1996-769806, filed on 18 Dec 1996, now
       patented, Pat. No. US 5874500, issued on 23 Feb 1999
       Continuation-in-part of Ser. No. US 1995-573799, filed on 18 Dec 1995,
       now abandoned
PRAI
       US 1999-151273P
                           19990827 (60)
DT
       Utility
FS
       GRANTED
EXNAM
      Primary Examiner: Nutter, Nathan M.
LREP
       Reed & Associates, Reed, Dianne E.
CLMN
      Number of Claims: 74
ECL
       Exemplary Claim: 1
       23 Drawing Figure(s); 19 Drawing Page(s)
DRWN
LN.CNT 3065
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
       Crosslinkable compositions are provided that readily crosslink in situ
AB
       to provide biocompatible, nonimmunogenic crosslinked
      biomaterials. The compositions contain at least three
       biocompatible, nonimmunogenic components having reactive functional
       groups thereon, with the functional groups selected so as to enable
       inter-reaction between the components, i.e., crosslinking. In a
      preferred embodiment, a first component is polynucleophilic, a second
       component is polyelectrophilic, and at least one third component
       contains one or more functional groups reactive with the nucleophilic
      moieties one the first or second component. At least one of the
      components is a polyfunctional hydrophilic polymer; the other components
      may also comprise hydrophilic polymers, or they may be low molecular
      weight, typically hydrophobic, crosslinkers. Methods for preparing and
      using the compositions are also provided. Exemplary uses include
       tissue augmentation, biologically active agent delivery,
      bioadhesion, and prevention of adhesions following surgery or injury.
CAS INDEXING IS AVAILABLE FOR THIS PATENT.
```

ANSWER 34 OF 35 USPAT2

L20

```
AN
       2002:22572 USPAT2
       Cross-linked polymer compositions and methods for
TI
       their use
       Rhee, Woonza M., Palo Alto, CA, United States
IN
       DeLustro, Frank A., Belmont, CA, United States
       Berg, Richard A., Los Altos, CA, United States
PA
       Cohesion Technologies, Inc., Palo Alto, CA, United States (U.S.
```

corporation) 20030318 US 6534591 B2 PΤ US 2001-932536 20010817 (9) ΑI Continuation of Ser. No. US 2000-733739, filed on 8 Dec 2000, now RLI patented, Pat. No. US 6323278, issued on 27 Nov 2001 Continuation of Ser. No. US 1999-302852, filed on 30 Apr 1999, now patented, Pat. No. US 6166130, issued on 26 Dec 2000 Continuation of Ser. No. US 1999-229851, filed on 13 Jan 1999, now patented, Pat. No. US 6051648, issued on 18 Apr 2000 Continuation of Ser. No. US 1996-769806, filed on 18 Dec 1996, now patented, Pat. No. US 5874500, issued on 23 Feb 1999 Continuation-in-part of Ser. No. US 1995-573799, filed on 18 Dec 1995, now abandoned Utility DT GRANTED FS Primary Examiner: Nutter, Nathan M. EXNAM Reed, Dianne E., Reed & Eberle LLP LREP Number of Claims: 30 CLMN Exemplary Claim: 1 ECL 19 Drawing Figure(s); 18 Drawing Page(s) DRWN LN.CNT 1659 CAS INDEXING IS AVAILABLE FOR THIS PATENT. Crosslinked polymer compositions comprise a first synthetic AB polymer containing multiple nucleophilic groups covalently bound to a second synthetic polymer containing multiple electrophilic groups. The first synthetic polymer is preferably a synthetic polypeptide or a polyethylene glycol that has been modified to contain multiple nucleophilic groups, such as primary amino (--NH.sub.2) or thiol (--SH) groups. The second synthetic polymer may be a hydrophilic or hydrophobic synthetic polymer which contains, or has been derivatized to contain, two or more electrophilic groups, such as succinimidyl groups. The compositions may further comprise other components, such as naturally occurring polysaccharides or proteins (such as glycosaminoglycans or collagen) and/or biologically active agents. Also disclosed are methods for using the crosslinked polymer compositions to effect adhesion between a first surface and a second surface; to effect tissue augmentation; to prevent the formation of surgical adhesions; and to coat a surface of a synthetic implant. CAS INDEXING IS AVAILABLE FOR THIS PATENT. ANSWER 35 OF 35 USPAT2 L20 2001:90979 USPAT2 ANMethod of making crosslinked polymer matrices in TI tissue treatment applications Rhee, Woonza M., Palo Alto, CA, United States IN DeLustro, Frank A., Belmont, CA, United States Berg, Richard A., Los Altos, CA, United States Cohesion Technologies, Inc., Palo Alto, CA, United States (U.S. PA corporation) PΤ US 6323278 B2 20011127 US 2000-733739 20001208 (9) AΙ Continuation of Ser. No. US 1999-302852, filed on 30 Apr 1999, now RLIpatented, Pat. No. US 6166130 Continuation of Ser. No. US 1999-229851, filed on 13 Jan 1999, now patented, Pat. No. US 6051648 Continuation of Ser. No. US 1996-769806, filed on 18 Dec 1996, now patented, Pat. No. US 5874500 Continuation-in-part of Ser. No. US 1995-573799, filed on 18 Dec 1995, now abandoned DT Utility FS GRANTED Primary Examiner: Nutter, Nathan M. EXNAM Axford, Laurie A., Reed, Dianne E. LREP Number of Claims: 12 CLMN

ECL

DRWN

Exemplary Claim: 1

19 Drawing Figure(s); 18 Drawing Page(s)

LN.CNT 1638

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB Crosslinked polymer compositions comprise a first synthetic polymer containing multiple nucleophilic groups covalently bound to a second synthetic polymer containing multiple electrophilic groups. The first synthetic polymer is preferably a synthetic polypeptide or a polyethylene glycol that has been modified to contain multiple nucleophilic groups, such as primary amino (--NH.sub.2) or thiol (--SH) groups. The second synthetic polymer may be a hydrophilic or hydrophobic synthetic polymer which contains, or has been derivatized to contain, two or more electrophilic groups, such as succinimidyl groups. The

two or more electrophilic groups, such as succinimidyl groups. The compositions may further comprise other components, such as naturally occurring polysaccharides or proteins (such as glycosaminoglycans or collagen) and/or biologically active agents. Also disclosed are methods for using the crosslinked polymer compositions to effect adhesion between a first surface and a second surface; to effect tissue augmentation; to prevent the formation of surgical adhesions; and to coat a surface of a synthetic implant.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

```
=> s 120 and dextran
   4 FILES SEARCHED...
  15 FILES SEARCHED...
            35 L20 AND DEXTRAN
=> dis hist
     (FILE 'HOME' ENTERED AT 09:50:10 ON 30 APR 2003)
     FILE 'CAPLUS' ENTERED AT 09:50:30 ON 30 APR 2003
          31015 S DEXTRAN
T.1
                E CHAUBET FREDERIC/IN, AU
            586 S L1 AND (GROWTH (W) FACTOR)
L2
              0 S L2 AND BIOMMATERIAL
L3
             10 S L2 AND BIOMATERIAL
L4
              6 S L4 AND (CROSS-LINKED OR CROSSLINKED)
L5
         474279 S (SULFATE OR SULPHATE)
L6
         59161 S (SULFONATE OR SULPHONATE)
L7
         42035 S CARBOXYMETHYL?
L8
L9
         563556 S L6 OR L7 OR L8
           6931 S L9 AND L1
L10
            304 S L10 AND (GROWTH (W) FACTOR)
7.11
L12
              3 S L11 AND (CROSS(W)LINK?)
     FILE 'APOLLIT, BABS, CAPLUS, CBNB, CEN, CIN, EMA, IFIPAT, JICST-EPLUS,
     PASCAL, PLASNEWS, PROMT, RAPRA, SCISEARCH, TEXTILETECH, USPATFULL,
     USPAT2, WPINDEX, WTEXTILES' ENTERED AT 10:06:35 ON 30 APR 2003
L13
            335 S L5
            284 S L13 AND (SULFATE OR SULFONATE OR CARBOXYMETHY?)
L14
L15
           5037 S L12
L16
            284 S L14 AND BIOMATERIAL
L17
            283 S L16 AND (TISSUE OR FILL? OR HYDROGEL)
L18
           274 S L17 AND (COLLAGEN OR GELATIN OR GLYCOL OR GLYCOLIDE OR HYDRO
            69 S L18 AND BMP
L19
L20
            35 S L19 AND PROSTHESIS
L21
            35 S L20 AND DEXTRAN
```